

BUREAU OF ENVIRONMENTAL REMEDIATION/REMEDIAL SECTION
GUIDELINE
SCOPE OF WORK (SOW)
FOR A
CORRECTIVE ACTION PLAN (CAP)/
CORRECTIVE ACTION (CA)

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The primary objectives of the Corrective Action Plan (CAP) are described as follows:

- 1) to provide a preliminary conceptual design of the corrective action (CA) and a description of the tasks necessary to implement the corrective action;
- 2) to obtain additional data, if necessary, to support the development of detailed design plans and specifications;
- 3) to provide detailed design plans and specifications including an operations and maintenance manual for the corrective action system and emergency contingency plans in the event of any significant failure of the corrective action system;
- 4) to identify and obtain necessary easements and permits required for the implementation of the corrective action; and
- 5) to create a performance evaluation plan to monitor the effectiveness of the corrective action and to describe the corrective action goals.

The primary objectives of the Corrective Action (CA) are described as follows:

- 1) to implement the Corrective Action Plan (CAP) as approved by KDHE;
- 2) to monitor the performance of the corrective action;
- 3) to determine whether corrective action goals have been attained, or are likely to be attained;
- 4) if appropriate, to perform post-corrective action monitoring to confirm attainment of corrective action goals;
- 5) to propose additional or alternative corrective action measures in the event the implemented corrective action is unable to attain corrective action goals;
- 6) to document and report to KDHE all activities performed pursuant to the corrective action;
- 7) to submit a final report to KDHE for approval which briefly describes the corrective action implemented at the site, and provides the appropriate data documenting that site-specific corrective action goals have been attained; and
- 8) if desired, to submit a site reclassification plan to KDHE for approval, which effectively reclassifies a site to resolved status.

This Scope of Work outlines the required elements of the CAP which is to be prepared as a deliverable document. The CAP Scope of Work shall, at a minimum, include the following components:

1.0 CORRECTIVE ACTION PLAN SCHEDULE

A schedule must be provided which defines the dates for the performance of certain milestone corrective action tasks and provides dates for the submission of appropriate corrective action plans described in Section 5.0.

2.0 TASKS REQUIRED TO COMPLETE THE CORRECTIVE ACTION

Describe in detail all tasks necessary to acquire additional data to support the development of a final design corrective action plan and to construct, implement, and monitor the performance of the corrective action. All necessary tasks shall be documented and described in adequate detail to clearly state the manner in which they will be implemented and reported. The tasks shall include those necessary for obtaining the appropriate easements, permits, etc.

3.0 DESIGN SPECIFICATIONS FOR THE CORRECTIVE ACTION

Complete design specifications, including any relevant figures and/or site system engineering layouts, shall be provided. As appropriate, preliminary and intermediate design plans shall be submitted to KDHE for approval. The Final Design Corrective Action Plan shall provide specifications in sufficient detail so that contractors could bid on the construction, implementation, and operation of the corrective action.

4.0 PERFORMANCE EVALUATION PLAN

A performance evaluation plan shall be provided as an element of the Final Design Corrective Action Plan to document the activities necessary to evaluate the effectiveness of the corrective action, including post-corrective action monitoring, if appropriate. At a minimum, the performance evaluation plan shall include: a description of the site-specific corrective action goals; frequency of site monitoring; a description of the various media to be monitored (ground water, surface water, soil, soil vapor, etc.); a description of quality assurance/quality control (QA/QC) considerations for the laboratory and field; and a description of reporting methods, format, and frequency. At a minimum, the performance evaluation reports shall include: a narrative description and/or graphic illustration of the effectiveness of the corrective action; laboratory analytical data including summary tables and figures; static water elevation measurements; a map graphically illustrating the site and associated monitoring wells or other sample point locations; a description of any deviations from the approved sampling procedures; QA/QC data; a contour map of the water level elevation; contaminant isoconcentration maps; logs of any newly constructed

site wells; and all other relevant site data collected during the reporting period.

5.0 CORRECTIVE ACTION PLANS

Corrective Action Plans shall be submitted to KDHE for approval. Corrective Action Plans to be submitted may include: 1) Preliminary Design Corrective Action Plan, which documents the conceptual design of the corrective action; 2) Data Acquisition Plan (optional), which describes various tasks necessary to gain additional data to develop the final design specifications; 3) Intermediate Design Corrective Action Plan (optional), which integrates newly collected data into a refined conceptual design of the corrective action; and 4) Final Design Corrective Action Plan, which provides detailed design specifications for the corrective action, describes all the tasks necessary to construct and implement the corrective action, a performance evaluation plan, and a schedule for construction and implementation of the corrective action.

The Corrective Action (CA) Scope of Work shall, at a minimum, include the following components:

1.0 IMPLEMENTATION OF SELECTED CORRECTIVE ACTION

The corrective action selected for the site shall be implemented in accordance with the KDHE-approved Final Design Corrective Action Plan. Implementation of the corrective action shall proceed according to the schedule contained within the KDHE-approved Final Design Corrective Action Plan Report.

2.0 MONITORING PROGRAM

The effectiveness of the corrective action shall be monitored as provided through implementation of the performance evaluation plan described within the KDHE-approved Final Design Corrective Action Plan Report. The schedule and frequency for corrective action performance evaluation and site monitoring shall proceed according to the KDHE-approved schedule in the Final Design Corrective Action Plan Report.

3.0 PERFORMANCE EVALUATION REPORTING

Performance evaluation reports must be submitted to KDHE in accordance with the KDHE-approved Performance Evaluation Plan contained within the Final Design Corrective Action Plan Report. The performance evaluation reports should contain all of the information and data as described within the performance evaluation plan, including a narrative description and/or graphic evaluation of the effectiveness of the corrective action as compared to the site-specific corrective action goals. If the performance evaluation program demonstrates that the implemented corrective action is incapable of achieving corrective action goals, the performance evaluation report should recommend additional or alternative measures necessary to augment or supplant the implemented corrective

action. KDHE must be notified within seven days of any significant changes which may diminish the effectiveness of the implemented corrective action to protect human health and the environment.

4.0 **CORRECTIVE ACTION REPORT**

Submit a Final Corrective Action Report to KDHE for approval which documents that the corrective action implemented at the site has satisfied the site-specific corrective action goals. The Final Corrective Action Report may consist of any one or more of the following: 1) Final Performance Evaluation Report; 2) Final Post-Corrective Action Monitoring Report; 3) Final Corrective Action Report; and/or 4) Reclassification Plan (see Reclassification Plan Scope of Work). Upon approval of the Final Corrective Action Report, KDHE shall issue a letter confirming completion of corrective action implemented at the site.